

CLAIMS

1. A lithium battery comprising:
a positive electrode comprising sulfur or lithium-containing sulfur represented by the formula $(\text{Li}_x\text{S})_n$, wherein $0 < x \leq 2$ and n is a natural number, and a metal complex of an organic sulfur compound having a thiol group or thiolate group in the molecule;
a negative electrode comprising a lithium-containing composite nitride represented by the general formula $\text{Li}_{3-x}\text{M}_x\text{N}$, wherein M is one transition element selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Ni and Cu, and $0.1 \leq x \leq 0.8$; and
a lithium ion conductive nonaqueous electrolyte.
2. The lithium battery as set forth in claim 1, wherein the positive electrode further comprises at least one of a conductive polymer and an organic sulfur compound having a thiol group or thiolate group in the molecule.
3. The lithium battery as set forth in claim 1, wherein the negative electrode further comprises at least one of an alloy and a metal oxide.
4. The lithium battery as set forth in claim 3, wherein said alloy is a solid solution or an intermetallic compound formed from at least one of Sn and Si and at least one selected from the group consisting of the group 2 elements, transition elements, group 12 and

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group 13 elements and group 14 elements in the periodic table.

5. The lithium battery as set forth in claim 3, wherein said metal oxide is one selected from the group consisting of SiO , SnO , SnO_2 , SrSnO_3 and Li_2SnO_3 .

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